UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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ART UNIT	PAPER NUMBER
2175	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/620,633	PAYTON ET AL.
	Examiner	Art Unit	
	Andrea N. Long	2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 April 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>44,45,48-50 and 52-66</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>44,45,48-50 and 52-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>01/30/2009</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Applicant's Response

In Applicant's Responses dated 04/24/2009, Applicant amended claims 44, 49, 50, 56-59,

claims 46, 47, and 51 are cancelled, claims 62-66 were added, and argued against all rejections

previously set forth in the Office Action dated 01/08/2009.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making
> and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it
> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode
> contemplated by the inventor of carrying out his invention.

Claims 59 and 65 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant

art that the inventor(s), at the time the application was filed, had possession of the claimed

invention.

Dependent claim 59 contains the limitation "reestablishing the at least one reference to

the form defined by the query model after code is generated from the form **to avoid code being**

generated in the other form ". There is <u>no</u> mention in the original specification as a whole that

describes of "**to avoid code being generated in the other form**".

Independent claim 65 is directed to a "**computer readable medium**". There is <u>no</u>

mention in the original specification as a whole that describes "**computer readable medium**"

If the examiner has overlooked the portion of the original specification that describes this feature of the present invention, then Applicant should point it out (by page number and line number) in response to this Office Action.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 56 and 59 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 56 recites the limitation "the model content provider" in the 2nd limitation of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 59 recites the limitation "the model content provider" in the 1st line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 44, 45, 48-50, 52-55, 61, 62, and 65 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Jarzebowicz et al "Creating SQL Queries the Easy Way with SQL

Assist for DB2 UDB Version 8.1", (November 6, 2002), hereinafter "Jarzebowicz" in view

of Banning et al (US Patent 5421008), hereinafter "Banning".

*For the convenience of the Applicant, the Examiner has pointed out particular references
contained in the prior art(s) of record in the body of this action. Although the specified citations
are representations of the teachings in the art and are applied to the specific limitations within
the individual claim, other passages and figures may apply as well. The Applicant should
consider the entire reference(s) as applicable as to the limitations of the claims.*

As to independent claim 44 and 65, Jarzebowicz teaches a method for creating a query

search condition through a user interface and modeling a query (page 1), the method comprising:

displaying column names that are selectable for use in a predicate of the query search

condition in a first display area of the user interface (page 3-4, Figure 4 – Column

"WORKDEPT");

displaying column operators that are selectable for use in the predicate of the query

search condition in a second display area of the user interface (page 3-4, Figure 4 - Operator

"IN");

receiving selection of one of the column names displayed in the first display area of the

user interface (page 3-4, Figure 4 – Column area allows for a drop down of a list of columns that

a user can select);

receiving selection of one of the column operators displayed in the second display area of

the user interface (page 3-4, Figure 4 – Operator area allows for a drop down of a list of

operators that a user can select);

automatically generating a list of all column values that are selectable for use in the

predicate of the query search condition based on the selected column names and the selected

column operator (page 8 2nd paragraph – "Find values" feature);

displaying the list of all column values that are selectable for use in the predicate of the

query search condition in a third display are of the user interface (Figure 6 - Value, page 8);

the first display area, the second display area, and the third display area being displayable

together in the user interface (Figure 6);

using a computer to form a complete query statement based on the query search condition

and selections in the user interface (pages 1 and 2); and processing the complete query statement

into a form defined by a query model, the form including a plurality of query elements

corresponding to the complete computer query statement. Jarzebowicz does not explicitly teach

wherein the processing into the form includes creating and storing the form including a

tree structure for each of the query elements of the query statement, the form indicating

relationships between all the query elements of the query statement.

Banning teaches creating one-to-one mapping of the actual parts of the SQL query

statement and the objects including relationships (col 5 lines 40-42). Fig. 2 reference character

56 and 57 show a tree structure representing a portion of the query statement. While only a

portion of the query statement is represented it provides insight to one skilled in the art that

elements of the query statement can be created and stored whether a portion or all of the query

statement. Additionally Banning teaches the form indicating relationships between all the query elements of the query statement. Figures 2 through 7 show a relationship of the current query statement. While sown as individual tables, the data located within the table provides for the relationship basis of the conditions and the table from which the conditions are selecting from.

It would have been obvious to one skilled in the art at the time the invention was made to have combined the teachings of Jarzebowicz and Banning to provide for interactively querying a model in a manner which is time efficient and element precise.

As to dependent claim 45, Jarzebowicz teaches receiving selection of one or more of the column values displayed in the third display area of the user interface (page 3-4 and 8, Figure 6 – Value area allows for a drop down of a list of values that a user can select)

As to dependent claims 48 and 54, Jarzebowicz teaches forming the predicate of the query search condition based on the selected column name, the selected column operator, and the one or more selected column values and adding the predicate to the query search condition (page 3-4);

displaying the query search condition and the predicate in a fourth display area of the user interface as one of a plurality of displayed predicates of the query search condition, the selection of at least two predicates being from the displayed query search condition (pages 3-4 and 8-9, Figures 4-6 – Search Condition),

the first display area, the second display area, the third display area, and the fourth display area being displayable together in the user interface (Figure 6).

As to dependent claim 49, Jarzebowicz teaches updating the query model with the predicate of the query search condition (page 4);

displaying SQL code of the query model in a fifth display area of the user interface, the first display area, the second display area, the third display area, the fourth display area, and the fifth display are being displayable together in the user interface (Figure 4).

As to dependent claims 50, 52, and 53, Jarzebowicz teaches wherein the column names, column operators, column values, and are selectable for use in the predicate of the query search condition in pull down menus (Figures 4 and 6, page 8).

As to dependent claim 55, Jarzebowicz teaches wherein adding the predicate to the query search condition is in response to a selection from the user to add the predicate (Figures 4 and 6 – ">" "<" buttons).

As to dependent claim 61, Jarzebowicz teaches wherein the at least two selected predicates and the query search condition are displayed as text in a displayed window, and wherein the grouping control is enabled for user selection only in response to the user selecting the at least two predicates as a number of text rows of the displayed query search condition that have a same spatial level being relative to an edge of the displayed window displaying the query search condition (page 8).

As to dependent claim 62, Jarzebowicz teaches wherein the complete query statement

includes at least on of a FROM clause and a GROUP BY clause (page 4)

Claims 56-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Jarzebowicz in view of Banning in further view of Goldberg et al (US Patent 6496833 B1),

hereinafter "Goldberg".

As to dependent claim 56, Jarzebowicz teaches processing the query statement into a

form defined by a query model (Page 4), the processing including:

using a plurality of content viewers to interface to an application that uses the user

interface and to process the query statement into the form defined by the query model by

obtaining the query search condition and selections input in the user interface, including : using a

particular one of a plurality of API-specific content viewers to interface with a particular

graphical user interface (GUI) API used by the application, each API specific content viewer

useable with an associated one of a plurality of different available GUI APIs and wherein each of

the API-specific content viewers processes item provider objects provided by the model content

provider for structures specific to the associated GUI API; and using a non-specific content

viewer to interface with the API-specific content viewers (page 4-5 work on existing SQL query,

regardless of the tool or editor used to create it). However Jarzebowicz does not forcefully teach

the using a model content provider to receive, from the non-specific content viewer, the query

search conditions and selections independent of specific structure and to translate the query

search conditions and selections into the form defined by the query model.

Goldberg teaches using a model content provider to receive, from the non-specific content viewer, the query search conditions and selections independent of specific structure and to translate the query search conditions and selections into the form defined by the query model (Figures 5 and 7, col 7 line 14 – col 8 line 67).

It would have been obvious to one skilled in the art at the time the invention was made to have included the model content provider of Goldberg with the query processing of Jarzebowicz to allow for translation of the query information regardless of the tool or editor used to create it.

As to dependent claim 57, Jarzebowicz teaches constructing a query statement but does not forcefully teach wherein each of the API-specific content viewers processes item provider objects describing the query statement and provided by the model content provider for structures specific to the associated GUI API. Goldberg teaches wherein each of the API-specific content viewers processes item provider objects describing the query statement and provided by the model content provider for structures specific to the associated GUI API (column 5 lines 44-64).

It would have been obvious to one skilled in the art at the time the invention was made to modify the forming of a query statement to include the processing of the query statement of Goldberg to automate the generation of query objects to allow for portability between different DBMS servers.

As to dependent claim 58, note the discussion of claim 56 above. Jarzebowicz teaches constructing a query statement. Jarzebowicz does not teach processing the query statement into

the form in accordance with the query model by creating a tree structure. Goldberg teaches

processing the query statement into the form in accordance with query model. Banning teaches

selecting one of the query elements of the query statement; identifying at least one type

associated with the selected query element; defining a parent node representing the selected

query element; defining a child node for the parent node for each of the identified at least one

types; and examining each of the child nodes to determine one or more subtypes of the child

nodes; defining a subtype child node of each child node for each of the determined subtypes; and

using the defined parent node, child node, and subtype child nodes to create the tree structure

representative of the selected query element (Figures 5-7, col 9 line 28 to col 10 line 44).

It would have been obvious to one skilled in the art at the time the invention was made to

have combined the teachings of Jarzebowicz and Goldberg with that of Banning to provide for

interactively querying a model in a manner which is time efficient and element precise.

As to dependent claim 59, Jarzebowicz teaches adding at least one proxy query element

to the form to replace at least one reference to at least one other form defined by the query model

(column 7 lines 14-49), and

reestablishing the at least one reference to the form defined by the query model after code

is generated from the form to avoid code being generated in the other form (pages 4-9 – allowing

editing an individual parts of a query statement and then compiling the statement).

As to dependent claim 60, Jarzebowicz teaches constructing a query statement.

Jarzebowicz does not teach translating the query information into the form defined by the query

model. Goldberg teaches creating the item provider objects dynamically as the query statement is formed (column 3 lines 14-25).

Claim 63, 64, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jarzebowicz in view of Banning in view of Goldberg in further view of Witkowski et al (US 6775662 B1), hereinafter "Witkowski".

As to dependent claims 63, 64 and 66, Jarzebowicz in view of Banning, note the discussion above of claims 1 and 65, teaches creating a tree structure of the query statement. Additionally Banning teaches the tree structure including combined query elements being one or more of the query elements that each include a plurality of sub-elements related by a combined element operator, the tree structure including the sub-elements and a call causing a return of the called combined query element and all of the sub-elements of the called combined query element (fig. 2 reference character 56). However they fail to teach the tree structure including an atomic query element.

Witkowski teaches an atomic query element being one or more query elements that are noniterative and unnested and do not have any sub-elements (Figure 5 reference character 521).

It would have been obvious to one skilled in the art at the time the invention was made to have included the atomic query element as that of Witkowski in the tree structure of Jarzebowicz and Banning to provide a complete tree for storing and representing of the query statement.

Response to Arguments

Applicant's arguments filed 04/24/2009 with regards to claims 44, 58, and 59 have been fully considered but they are not persuasive.

Applicant asserts that the references fail to teach processing a query statement into a form defined by a query model, including creating and storing a tree structure for each query element and the form showing relationships between all the query elements of the query statement.

The Examiner disagrees.

Banning as acknowledge by the Applicant creates a tree structure for parts of the query elements. Banning teaches creating one-to-one mapping of the actual parts of the SQL query statement and the objects including relationships. Fig. 2 reference character 56 and 57 show a tree structure representing a portion of the query statement. While only a portion of the query statement is represented it provides insight to one skilled in the art that elements of the query statement can be created and stored whether a portion or all of the query statement. Additionally Banning teaches the form indicating relationships between all the query elements of the query statement. Figures 2 through 7 show a relationship of the current query statement. While sown as individual tables, the data located within the table provides for the relationship basis of the conditions and the table from which the conditions are selecting from.

Applicant asserts that the references fail to teach adding at least one proxy query element to the form to replace at least one reference to at least one other form defined by the query model.

The Examiner disagrees.

Jarzebowicz allows generation and creation of individual elements or parts of the query

statement to form a complete query statement. Each part of the query statement is being

interpreted as a proxy query element because a user can affect that particular part of the query

statement without affecting additional elements of the query statement. Jarzebowicz system is

setup to manage individual sections, validate the section, and once the user has completed the

query statement compile the statement as a whole. Validation of each section only generates

code for that section. The code is then generated as a whole when the complete query statement

is compiled.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea N. Long whose telephone number is 571-270-1055. The examiner can normally be reached on Mon - Thurs 6:00 am to 3:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrea N Long/
Examiner, Art Unit 2175

/William L. Bashore/
Supervisory Patent Examiner, Art Unit 2175